

AMENDMENTS TO THE CLAIMS

In the claims, please amend claims 5, 7, 12, and 16, and add new claims 21 and 22 as follows:

- 1-4. (canceled)
5. (currently amended) A process for delivering a polynucleotide to the cytoplasm of a cell in vitro consisting ~~essentially~~ of:
  - a) forming a styrene-maleic anhydride random copolymer;
  - b) ~~covalently linking hydrophobic groups to~~ reacting hydrophobic amines or hydrophobic alcohols with anhydride monomers in the copolymer thereby forming a membrane active polymer capable of lysing mammalian cell membranes at pH 6.5; and
  - c) contacting said cell with said polynucleotide and said membrane active polymer such that the compound and the polymer are endocytosed by the cell.
6. (canceled)
7. (currently amended) The process of claim 5 wherein the hydrophobic ~~groups are selected from the list consisting of: hydrophobic esters and hydrophobic amides~~ amines consist of alkyl amines.
8. (previously presented) The process of claim 7 wherein a functional group is covalently linked to an anhydride monomer in the polymer.
- 9-11. (canceled)
12. (currently amended) A process for delivering a polynucleotide to the cytoplasm of a cell in vitro consisting ~~essentially~~ of:
  - a) forming a butyl vinyl ether-maleic anhydride alternating copolymer;
  - b) ~~covalently linking hydrophobic groups to~~ reacting hydrophobic amines or hydrophobic alcohols with anhydride monomers in the copolymer thereby forming a membrane active polymer capable of lysing mammalian cell membranes at pH 6.5; and
  - c) contacting said cell with said polynucleotide and said membrane active polymer such that the compound and the polymer are endocytosed by the cell.
- 13.-15. (canceled)
16. (currently amended) The process of claim 12 wherein the hydrophobic ~~groups are selected from the list consisting of: hydrophobic esters and hydrophobic amides~~ amines consist of alkyl amines.

17. (previously presented) The process of claim 12 wherein a functional group is covalently linked to an anhydride monomer in the polymer.
- 18-20. (canceled)
21. (new) The process of claim 8 wherein the functional group is selected from the group consisting of: targeting groups, steric stabilizers, membrane active compounds, and reactive groups.
22. (new) The process of claim 17 wherein the functional group is selected from the group consisting of: targeting groups, steric stabilizers, membrane active compounds, and reactive groups.

If there are any questions or concerns, please contact the undersigned.

Respectfully submitted,

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I hereby certify that this correspondence is being transmitted to the USPTO on this date: Jan. 17, 2008.

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